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AGRICULTURAL RESEARCH SERVICE, U. S. DEPARTMENT OF AGRICULTURE

Dairy-Herd-Improvement Letter

ARS-44-129 (Vol. 39, No. 3)

March 1963

NUMBER OF NATION'S DAIRY CATTLE BEING BRED ARTIFICIALLY

During 1962, 7,748,687 cows, or 41.4 percent of the total cows and heifers 2 years old and over kept for dairy purposes, were bred artificially. This is an increase of over 265,000 cows over the comparable figure for the year 1961. This total may include a small proportion of beef cattle since no distinction was made of animals bred to beef bulls.

During the year the number of AI organizations operating studs decreased from 56 to 51. The number of dairy bulls which were in service during 1962 was 3,158, as compared to 2,036 in 1961.

Wisconsin continued to lead all States in number of cows bred artificially, with 1,264,006 being bred to dairy sires. The following States reported 50 percent or more of all cows bred artificially to dairy sires: Connecticut, 60.8; New Hampshire, 55.1; Hawaii, 54.5; New Jersey, 54.4; Maine, 53.4; Pennsylvania, 52.9; Wisconsin, 52.1; and Massachusetts, 51.9.

The table on page 3 presents a yearly summary of the scope of AI in the United States. The production statistics in the rightmost portion of the table must be interpreted in terms of (1) the use of daughter-herdmate comparisons rather than daughter-dam comparisons in 1962, (2) yearly variation in number and breed of sires summarized, notably from 1960-1962, and (3) the inclusion of non-AI progeny in summaries prior to 1960.

On page 4 is presented the summary of artificial insemination activity by States for 1962. The primary information in this table is the number of cows bred in each of the various States. Cows bred are divided into those bred to dairy bulls and those bred to beef bulls. The number of herds serviced in each State are estimated values. Many organizations do not report herds enrolled; those which do may report herds not active in 1962. Also the number of registered cows bred to dairy bulls gives only totals reported by the AI organizations. A number of units fail to report the number of registered animals. The total cows bred to dairy sires for which registerednon-registered distinction was made was 6,475,921. This yields an overall percentage of registered cows in A. I. of 11.8%.

The rightmost column of the table presented on page 4 represents an estimate of the percentage of milk cows bred by AI to dairy sires. These values will slightly underestimate the percentage of milk cows bred generally by AI in those areas where beef sires were used on dairy cows.

The map on page 7 graphically illustrates the density of artificial insemination in the various States.

On pages 5 and 6 are listed the individual artificial insemination organizations active as of January 1, 1963. For each the number of bulls in service by breed and the total cows bred in 1962 are listed.

STATUS OF ARTIFICIAL-BREEDING PROGRAM IN THE UNITED STATES 1939-63

														-	3-										
	ers	Fat	: Pounds	•	ı	١	•	419	T74	428	478	433	436		459	473	475	476	,	478	482	4/443	4/452 4/435	١	l
Summarized 1/	Daughters	Milk :	ľ	1	1	1		10,155:	10,490	10,488:	10,741:	10,576:	10,499:		11,009:	11,176:	11,239:	11,265:		11,304	11,493:		$\frac{4}{4}$ 11,172:4/452 $\frac{4}{4}$ 10,386: $\frac{4}{4}$ /435		
Sires Summ	5	Fat	Pounds	1	1	1	ı	387	160	387	401	407	412		419	429	432	436 438		446	451	4/437	4/445		1
AI Si		Milk	Pounds	1		1		9,559		9,629	10,270	10,161	10,157		10,26/	10,375	10,483	10,575		10,772	10,918	10,790	11,181 10,601		
		Total:	Number:					135:	: 671	147	335:	426 :	514 : 559 :		634	953:	: 096	883 932		1,074:	963	477	$\frac{4}{4}$, 488 :4/ $\frac{4}{4}$, $\frac{4}{4}$, $\frac{4}{4}$, $\frac{4}{4}$		
	:Average :	:per sire:	Number:	228	246 :	299 :	274 :	318:	: 766	495	815:	982 :	1,078:		1,605 1,848	1,865:	1,937	2,210:		2,483	2,816:		3,010 :2 3,155 :2		
to			Number :	_		2/ 70,751:		2/ 182,524:		2/ 360,732:	1,184,168:	1,713,581:	2,091,175:		3,509,573:	4,845,222:	5,155,240:	5,413,874:	COOFE OBO	6,645,568:	6,932,294:	7,144,679:	7,482,740:7,748,687:	1	• ••
cows bred	Beef :	sires :	Number :	-	-	1		1 1	1	1				••					•••		1		435,592 : 911,006 :		•
	Dairy:	sires	Number	1	ı			1 1	1					••		1			• • •		1		7,047,148 : 6,837,681 :		
	•••	Herds:	Number	949	2,971 :	5,997	12,118	23,448 :	. ,70,607	43,998	140,571	224,493	316,177 : / 409,300 :		/ 548,300 :-			/ 845,900 : / 900.400 :		/ 975,372		910,000	863,781 : 862,150 :		•
	: Average :	:per stud:	Number:	4.7	5.5 :	. 8.9	. 0.6	9,7	, , , ,	10.9	17.3	19.2	21.6 : 21.7 :3.	•	24.7 :3/		•• ••	32,3	•	37.7	38.4 :3		44.4 43.9 :3/	50.2	1
Sires in service				33 :	: 138 :	: 237 :	412	574:	· · ·	729 :	1,453	1,745	1,940 : 2,104 :		2,18/ :: 2,374 ::	2,598	2,661	2,450 : 2,553 :	7 6 5 1	2,676	2,460:	2,544	2,486:	2.559	
res in		Beef	Number	1	•	ı		1 1		ı						1	1	1 1		1 1	1		420	401	
Si		: Dairy:	Number:Number:Number:Number	· ··	1	·· ··	 !		· ··		· · · ·	·· ··				1	·· ··			 			2,036:	2.158:	
		Studs:	Number	7	25	35	94	59	3	67	84	91	90	ò	4 6	96	93	79	7.5	77	9	62	26 56	51	l
	••	Year:	•••	1939	1940:	1941:	1942	1943 :	+	1945 :	1947	1948	1949 : 1950 :		1952 :	1953 :	1954:	1955 : 1956 :	1057	1958:	1959:	1960	1961	1963	••

Since 1960 records of sires Prior to 1962 sires for which dam and daughter records had been compiled were designated as "proved" sires. Prior to 1946 cows were reported only on the basis of enrollment. Estimated. Prior to 1960 records of sires in artificial breeding service included records of both non-AI and AI progeny. In artificial breeding service include records of AI progeny only. Beginning in 1962, herdmates were used instead of dams. जिल्ला

STATUS OF ARTIFICIAL-BREEDING PROGRAM (January 1, 1963)

Cows bred in State during 1962 Milk cows in U										
State	Studs	Herds 1/	to Dairy s		Beef sires		Cows bred to			
Beace	Deads	nerus <u>r</u> /	Registered 1/		Total	Total	Dairy sires			
	Wassels and	Nb.om			Number	Thousands	Porcent			
	Number	Number	Number	Number	Number		Percent			
Alabama <u>3</u> /	0	3,800	4,804	46,297	4,539	249	18.6			
Alaska	1	400	141	1,431	-	3	47.7			
Arizona <u>3</u> /	0	150	1,047	12,470	422	54	23.1			
Arkansas <u>3</u> /	Ō	3,700	3,087	27,853	7,664	222	12.5			
California	5	10,500	28,789	360,716	20,127	881	40.9			
Colorado	1	2,700	3,540	29,824	4,793	124	24.1			
Connecticut	1	4,000	9,794	54,106	8,703	89	60.8			
Delaware 3/ Florida 3/	0	900	2,788	9,581	1,628	28 188	34.2 48.9			
Florida 3/	0	2,700	7,195	91,978 44,809	11,460	221	20.3			
Georgia 3/	1	1,300 290	5,119 462	8,715	2,277 57	16	54.5			
Hawaii Idaho 3/	0	11,000		103,632	5,308	217	47.8			
	3		6,871	223,259	52,670	585	38.2			
Illinois Indiana	1	52,500 35,000	38,654 18,570	156,440	14,196	449	34.8			
Iowa	1	63,000	21,360	312,482	24,166	888	35.2			
Kansas	1	17,500	9,618	85,201	15,544	355	24.0			
Kentucky	ī	37,000	16,010	112,581	29,287	544	20.7			
Louisiana	ī	5,700	7,385	63,386	5,630	263	24.1			
Maine	î	3,500	826	55,501	5,165	104	53.4			
Maryland	ī	11,000	12,949	89,878	4,707	228	39.4			
Massachusetts 3/-	ō	4,700	11,240	51,354	8,288	99	51.9			
Michigan	1	38,000	37,475	318,548	44,909	701	45.4			
Minnesota	2	89,000	33,362	608,036	56,239	1,406	43.2			
Mississippi	1	5,600	1,625	36,450	9,941	350	10.4			
Missouri 3/	0	44,000	8,961	125,294	35,810	673	18.6			
Montana <u>3</u> 7	0	1,600	960	12,404	5,744	76	16.3			
Nebraska 3/	0	14,000	5,832	57,785	16,829	315	18.3			
Nevada 3/	0	90	349	4,793	599	17	28.2			
New Hampshire	1	3,900	8,287	31,939	3,945	58	55.1			
New Jersey	1	4,000	8,240	71,813	1,622	132	54.4			
New Mexico 3/	0	270	846	12,480	1,111	41	30.4			
New York North Carolina	1	54,000 16,000	100,341 10,266	622,050	73,721 4,649	1,379 278	45.1 30.3			
North Dakota 3/	0	8,700	1,185	84,345 29,782	4,982	290	10.3			
Ohio	2	71,000	50,056	327,741	47,782	720	45.5			
Oklahoma 3/	0	1,700	2,582	19,704	2,745	240	8.2			
Oregon	ĭ	15,000	8,287	65,436	20,942	162	40.4			
Pennsylvania	6	55,000	110,827	517,005	95,167	978	52.9			
Puerto Rico	1	1,600	1,491	31,213	_	-	_			
Rhode Island 3/	0	850	1,210	5,361	904	14	38.3			
South Carolina 3/	0	1,900	3,913	29,558	3,296	111	26.6			
South Dakota 3/	0	3,600	2,966	31,780	10,158	256	12.4			
Tennessee	3	22,000	7,477	92,999	25,506	526	17.7			
Texas	1	5,500	4,744	75,399	10,851	598	12.6			
Utah	1	6,200	2,941	50,878	2,154	105	48.5			
Vermont 3/	0	8,700	11,611	123,322	13,238	285	43.3			
Virginia	1 2	14,000	18,252	96,782	11,733	363	26.7			
Washington	0	23,000	10,345	120,637	42,492	268	45.0			
West Virginia 3/- Wisconsin	6	5,500 75,000	3,310 93,553	22,203	5,070 123,658	126 2,426	17.6 52.1			
Wyoming 3/	ő	1,100	752	6,444	8,578	2,420	22.2			
,	Ü	2,200	152	0,744	0,570	2,	~ ~ ~ ~			
United States	51	862,150	762,295	6,837,681	911 006	19 730	36.5			
onited States) I	002,130	702,293	0,037,001	911,006	18,730	30.3			

^{1/} Estimated.
2/ Statistical Reporting Service estimate of number of cows and heifers 2 years old and over kept for milk.
3/ Buys semen from studs in other States.

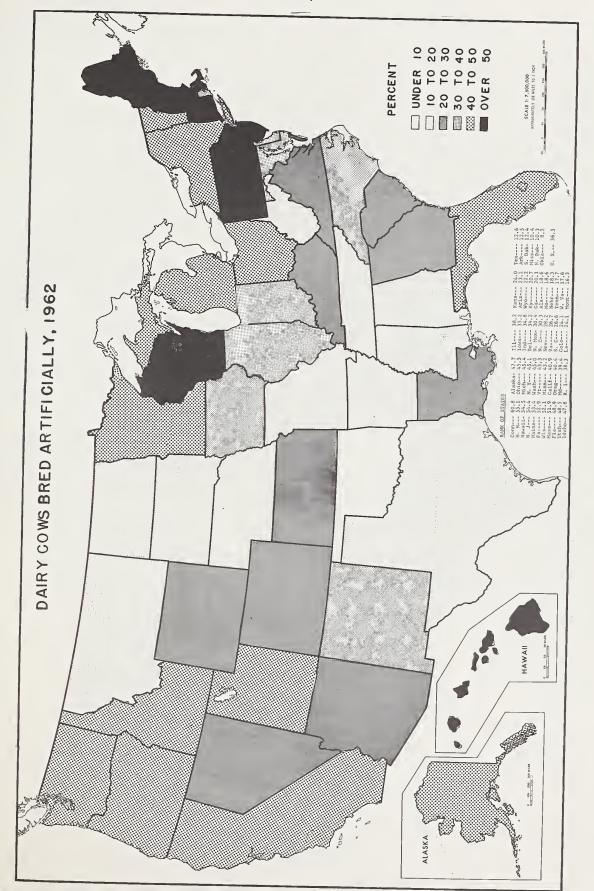
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ARTIFICIAL-BREEDING ORGANIZATION BULL STUDS, JANUARY 1, 1963

Shire Savisa Savy Sate Save Save		Number and breed of bulls used										
ALASKA Markamska Valley Breeders Association, Palmer	State, Name, and Location of Studs									Total		
Matamaska Valley Breeders Association, Palmer	AT LOWE	15	10				124		15002	10001		
Adohr Farms Inseninating Service, P.O. Box 88, Camarillo-		-	_	-	3	-	3	_	_	6	1,076	
Adohr Farms Inseninating Service, P.O. Box 88, Camarillo-												
Excelsior Freeding Service, 7401 Adams, Corona	Adohr Farms Inseminating Service, P.O. Box 88, Camarillo	-	-			-	-	-	-		9,417	
Jessup Breeders, 1630 E. Artesia Blud., Artesia 2 10 29 5 - 1 5 52 101,313	Calif. Dairy Breeders, Inc., P.O. Box 188, Davis	-	- 2				-	_	6		55,640 23,702	
Pacific Breeders Coop., Inc., 1464 Middle Two Rock Road, Petaluma		Ξ					Ξ.	1	5			
COLORADO Colorado State University ABS, 809 City Park Ave.,	Pacific Breeders Coop., Inc., 1464 Middle Two Rock Road,			,	0	,			,	20		
COINEDTICIT New England Selective Breeding Assn., Inc., Newton Road, Woodbridge	recaluma	-	-	0	7	0	-	-	1	22	27,300	
Fort Collins	COLORADO											
CONNECTICUT New England Selective Breeding Assn., Inc., Newton Road, Woodbridge		_	_	_	3	_	_	1	5	9	14.169	
New England Selective Breeding Assn., Inc., Newton Road, Woodbridge					,			-	_		14,107	
### HAMAII Haleakala Ranch Dairy Farm, Makawao, Maui												
HAWAII Haleakala Ranch Dairy Farm, Makawao, Maui		3	6	13	21	11	-	-	5	59	136,705	
Haleakala Ranch Dairy Farm, Makawao, Maui	·										,	
ILLINOIS Curtiss Breeding Service, Inc., Cary		_	_	_	1	_	_	_	_	1	29	
Curtiss Breeding Service, Inc., Cary					_					_		
Northern Illinoïs Breeding Coop., Rt. 1, Hampshire		3	5	23	81	15	_	3	49	1 79	936 194	
INDIANA John A. Newman & Sons, R. R. 2, Box 21, Culver	Northern Illinois Breeding Coop., Rt. 1, Hampshire					-	_	5	-		106,298	
John A. Newman & Sons, R. R. 2, Box 21, Culver	Southern Illinois Breeding Association, Breese	-	2	6	16	6	-	4	13	47	75,551	
Eastern Iowa Breeders, Hiawatha	INDIANA											
Eastern Iowa Breeders, Hiawatha	John A. Newman & Sons, R. R. 2, Box 21, Culver	-	-	-	6	-	-	-	-	6	687	
Eastern Iowa Breeders, Hiawatha	TOWA											
Kansas ABS Unit, Anderson Hall, Kansas State University, Manhattan		4	10	12	25	5	-	4	-	60	165,813	
Kansas ABS Unit, Anderson Hall, Kansas State University, Manhattan	KANSAS											
KENTUCKY Kentucky Artificial Breeding Assn., 1930 Herr Lane, Louisville 7												
Kentucky Artificial Breeding Assn., 1930 Herr Lane, Louisville 7	Manhattan	4	5	6	20	5	-	4	19	63	51,414	
Louisville 7	KENTUCKY											
LOUISIANA L.S.U. Dairy Improvement Center & La. ABC, Inc., Box 8907, LSU, Baton Rouge			_									
L.S.U. Dairy Improvement Center & La. ABC, Inc., Box 8907,	Louisville /	-	5	9	13	10	-	-	10	47	108,753	
LSU, Baton Rouge	LOUISIANA											
MAINE Maine Breeding Cooperative, Inc., RFD #1, Augusta				-					7	26	CF 700	
Maine Breeding Cooperative, Inc., RFD #1, Augusta	LSU, bacon kouge	-	-	5	٥	0	-	-	,	26	65,792	
MARYLAND Maryland-West Virginia Bull Stud, P.O. Box 555, Frederick- 5	MAINE					- 0			_			
Maryland-West Virginia Bull Stud, P.O. Box 555, Frederick- 5	maine Breeding Cooperative, Inc., RFD #1, Augusta	T	I	13	14	12	-	3	3	47	55,044	
MICHIGAN Michigan ABC, Inc., P. O. Box 511, East Lansing	MARYLAND											
Michigan ABC, Inc., P. O. Box 511, East Lansing	Maryland-West Virginia Bull Stud, P.O. Box 555, Frederick-	5	4	9	18	5	-	-	8	49	96,183	
MINNESOTA Midwest Genes, Inc., Anoka 1/	MICHIGAN											
Midwest Genes, Inc., Anoka 1/	Michigan ABC, Inc., P. O. Box 511, East Lansing	3	6	11	38	8	3	5	17	91	265,991	
Midwest Genes, Inc., Anoka 1/	MINNESOTA											
MISSISSIPPI	Midwest Genes, Inc., Anoka 1/						-					
Mississippi ABC, State College	minnesota valley Breeders Association, New Prague	3	6	15	49	5	-	4	18	100	323,984	
NEW HAMPSHIRE	MISSISSIPPI											
	Mississippi ABC, State College	-	-	4	6	9	-	-	6	25	29,005	
New Hampshire-Vermont Breeding Association, Concord 3 - 10 12 11 36 64,985	NEW HAMPSHIRE											
	New Hampshire-Vermont Breeding Association, Concord	3	-	10	12	11	-	-	-	36	64,985	

^{1/} Formed May 1, 1962 from merger of Consolidated Breeders Cooperative, Iowa Breeders Cooperative, M. F. A. Dairy Breeders, and Nebraska ABA.

Change War and Yarabian & Change		Total								
State, Name, and Location of Studs	Ayr- shire	Swiss		n- Hol- stein		Red Dane	Short	Beef	Total	cows bred
NEW JERSEY New Jersey Cooperative Breeders Assn., Inc., Annandale	-	2	10	20	3	-	-	4	39	51,142
NEW YORK New York ABC, Inc., Judd Falls Road, Ithaca	13	14	24	98	25	-	-	11	185	554,234
NORTH CAROLINA N. C. Institutional Breeding Assn., Dept. Animal Science, N. C. State College, Raleigh	_	_		13	_	-	_	_	13	1,362
OHIO Central Ohio Breeding Assn., 1224 Alton-Darby Road, Columbus 4	5	9	16	30	10	_	2		72	222,724
NOBA, Inc., P. O. Box 1015, Tiffin	-	ź	12	28	16	-	í	11	70	229,562
OREGON Oregon Breeders Association, P. O. Box 48, Corvallis	-	-	12	10	11	-	-	4	37	50,217
PENNSYLVANIA First Pa. Artificial Breeding Cooperative, Rt. 1,			_							
LewisburgLewisburg	- 4 7	1	7 6 10	17 13 19	2 8	=	=	13 3 5 7	37 29 49	59,080 32,500 109,082
Southeastern Pa. ABC, Box 254, Lancaster	3 -	1 5 -	12 14 -	19 21 4	4 10 -	=	=	7 9 -	46 62 4	156,562 150,672 2,000
PUERTO RICO Puerto Rico Artificial Breeding Assn., P.O.Box 958,Dorado-	-	4	_	11	-	-	-	2	17	17,776
TENNESSEE East Tennessee ABA, Route 10, Knoxville Tennessee Artificial Breeding Association, Brentwood	2	2 4	7 8	11 7	10 9	:	3	7 5	42 36	40,600 39,139
West Tennessee Artificial Breeding Assn., Yorkville	-	-	-	6	7	-	-	6	19	11,348
TEXAS Texas A & M Dairy Breeding Center, Dairy Science Dept., Texas A & M College, College Station	-	-	-	2	-	-	-	4	6	728
UTAH Cache Valley Breeding Association, 1950 N. Main, Logan	2	5	15	18	14	-	4	19	77	77,519
VIRGINIA Virginia ABA, Inc., P. O. Drawer 391, Rocky Mount	3	_	5	10	6	-	-	4	28	69,435
WASHINGTON W. De Jong's Supreme Bull Service, Rt. 1, Monroe	_	_	_	3	_	_	_	1	4	2,005
Evergreen Northwest Breeders, Inc., P. O. Box 197, Burlington	1	2	10	16	11	-	3	13	56	118,787
WISCONSIN American Breeders Service, MadisonAssociated Breeding Service, Lena	3	6	19 4	56 11	13	-	3	43 4	143 19	1,506,365 20,791
Badger Breeders Cooperative, Rt. 2, P.O. Box 469, Shawano East Central Breeders Assn. Coop., P.O. Box 191, Waupun	_	6	19 5	26 22	7	-	- - 4	9	67 39	405,688 89,006
Piper Brothers Farms, Inc., Watertown	4 -	2 6	4 17	25 56	3 5	Ξ	6	9 16	51 106	108,649 442,548
UNITED STATES	79	152	446	1,090	311	6	74	401	2,559	7,748,687



EXTENSION SERVICE OFFICIALS WORKING WITH DAIRY BREEDING ORGANIZATIONS IN THE STATES

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Ala----R. Sam Jones, Jr., Extension Service, Auburn University, Auburn.
Alaska---W. J. Sweetman, Dairy Husbandman, University of Alaska, Palmer.
Ariz-----W. R. Van Sant, Extension Service, University of Arizona, Tucson.
Ark----James B. Ragland, Extension Service, University of Arkansas, Little Rock. Calif----C. L. Pelissier, Extension Service, University of California, Davis.
Colo----D. C. Jordan, Extension Service, Colorado State University, Ft. Collins.
Conn----Robert H. Benson, Extension Service, University of Connecticut, Storrs. Del-----W. R. Hesseltine, Extension Service, University of Delaware, Newark. Fla-----C. W. Reaves, Extension Service, University of Florida, Gainesville.
Ga-----J. Nelson Maddux, Extension Service, University of Georgia, Athens. Hawaii---H. M. Vollrath, Department of Animal Science, University of Hawaii,
Idaho----George W. Cleveland, Extension Division, University of Idaho, Boise.
Ill-----J. G. Cash, Extension Service, University of Illinois, Urbana.
Ind----N. J. Moeller, Dairy Extension Office, Purdue University, Lafayette.
Iowa----W. R. Taylor, Extension Service, Morrill Hall, Iowa State University, Ames.
Kans----Ralph Bonewitz, Extension Service, Kansas State University, Manhattan. Ky-----E. C. Troutman, Extension Service, College of Agriculture, Lexington 29.
La-----H. W. Anderson, Agri. Extension Service, Louisiana State University,
                                                                            Baton Rouge 3.
Maine----Ralph Corbett, Extension Service, College of Agriculture, Orono.
Md-----J. R. Schabinger, Extension Service, University of Maryland, College Park.
Mass----S. N. Gaunt, Extension Service, University of Massachusetts, Amherst.
Mich----L. A. Johnson, Extension Division, Michigan State University, East Lansing.
Minn----R. W. Wayne, Extension Service, University of Minnesota, St. Paul 1.
Miss----G. B. Crain, Extension Service, Mississippi State University, State College.
Mo-----E. T. Itschner, Extension Service, University of Missouri, Columbia.
Mont----E. J. Peace, Extension Service, Montana State College, Bozeman.
Nebr----C. W. Nibler, Extension Service, University of Nebraska, Lincoln 1. Nev----J. D. Schuh, Extension Service, University of Nevada, Reno.
N. H ---- Hilton Boynton, Extension Service, University of New Hampshire, Durham.
N. J ---- E. T. Oleskie, Extension Service, College of Agriculture, New Brunswick.
N. Mex -- B. Ells, Extension Service, New Mexico College of Agriculture, University Park.
N. Y----Raymond Albrectsen, Extension Service, Cornell University, Ithaca.
N. C ---- J. D. George, Extension Service, N. C. State College of Agriculture, Raleigh.
N. Dak---George Fisher, Extension Service, N. Dak. State University, Fargo.
Ohio----C. D. McGrew, Extension Service, Ohio State University, Columbus 10.
Okla----C. H. Burton, Extension Division, Oklahoma State University, Stillwater.
Oreg----H. P. Ewalt, Extension Service, Oregon State University, Corvallis.
Pa----L. W. Specht, Extension Service, Pennsylvania State University, University Park.
P. R----Cesar A. Calderon, Extension Service, University of Puerto Rico, Rio Piedras.
R. I ---- J. W. Atwood, Extension Service, University of Rhode Island, Kingston.
S. C----C. G. Cushman, Extension Service, Clemson Agricultural College, Clemson.
S. Dak---Ervin Kurtz, Extension Service, S. Dak. State College of Agriculture, Brookings.
Tenn----C. K. Chappell, Extension Service, P. O.Box 1071, University of Tennessee,
Tex----A. M. Meekma, Extension Service, Texas A & M College, College Station.
Utah----J. J. Barnard, Extension Service, Utah State University, Logan.
Vt-----W. A. Dodge, Extension Service, University of Vermont, Burlington.
Va-----V. L. Baldwin, Extension Division, Virginia Polytechnic Institute,
                                                                           Blacksburg.
Wash-----Willard Winters, Extension Service, Washington State University, Puyallup.
W. Va----W. L. Northern, Extension Service, West Virginia University, Morgantown.
Wis-----G. M. Werner, Extension Service, University of Wisconsin, Madison 6.
Wyo-----I. W. Slater, Extension Division, University of Wyoming, Laramie.
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